

∞ The Family Times ∞

Funnier than the US economy (almost!)

December 25, 2022

Price: priceless (due to inflation)

BIBLE BEE SEMI-FINALIST

By AARON RUGG

When we went to Bible Bee in November this year, I found out that I had qualified for Junior Semi-finals, which was the top 15 in the country for ages 11-14. I was actually pretty surprised that I had gotten into Semifinals because I hadn't gotten Perfect Orals and I didn't have any idea about my test score, but apparently it was good enough to get into the top 15 even though it wasn't very good because the test was hard.

After I found out I was a Semi-finalist, we did training, where they showed us how to use the clickers and how to walk on stage, and then we went back to the hotel to practice verses.

Semifinals has four rounds. In the first round, you recite a medium-length passage and get scored. The two lowest scores get eliminated. Then in the second round, you recite a shorter passage and any mistake eliminates you. For the third round, you get little clickers and have to answer questions from the study passage or memory passages. And then for the fourth round you have to recite a long passage perfectly or else you get eliminated.

After we got dressed up, we went over to the convention center and then got pictures and waited backstage for it to start. It felt like a really long time. I was up to recite 6th, which wasn't as bad as being up first or last. I made a mistake on the first passage, which I really shouldn't have made but I panicked for some reason. Then I thought I would probably be knocked out, but one other person had timed out because he couldn't figure out how to start the verse, and another person had made 3 mistakes, so that meant I advanced. Then in the second round, I had to get it perfectly, but I got a pretty short one and it was fairly easy. Two other contestants did make mistakes, so in the third round I stood in the middle.

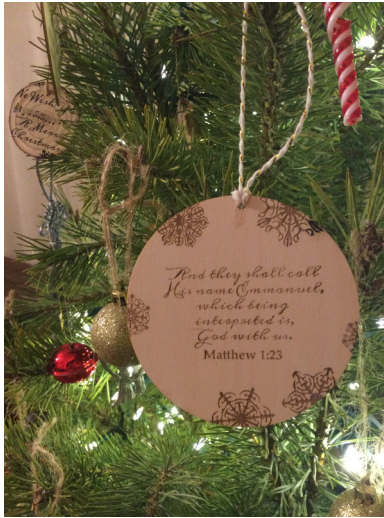
Then the question round started. The first question was "In how many chapters is Cyrus mentioned by name?" but the moderator read the question as "In how many chapters is cypress mentioned by name" and cypress is a tree that is mentioned in one chapter of the study passage, so that was weird. I figured that he had meant to say Cyrus, so I was going to say 2, but they told us not to hit the

clicker until the question showed up on the screens below us and the question never showed up, so that question was thrown out and they tried to fix the monitors.

Then they replaced that question with a backup question, and we moved on. The monitors never quite worked though, because sometimes there would be a huge gap in between the B and C and it would cut off the question, and sometimes the question would be so big that it cut off option D. I knew all the questions though, so it didn't matter to me.

Then in the last one I got one of the hardest passages, and I forgot the exact wording in a couple places, so I was eliminated. I'm not that disappointed though, because I got to Semifinals and I probably wouldn't have done very good in Finals this year. Next year I want to try to memorize the memory passages earlier so that I have more time to perfect them.☹





THE TALE OF CHRISTMAS

A POEM BY ANDREW NATHAN
RUGG

The tale of Christmas
you may think,
had started with a
skating rink,
perhaps the Grinch, or
men of snow,
but Christmas starts
long, long ago.

So far away and long ago,
that no one saw it that you know,
but written was for us, you see,
that we through this have liberty.

But Christmas in itself is naught,
I must now explain how evil brought
its darkness to this world wherein
it brought all mankind to sin.

This world created so long ago,
six thousand years, that I do know,
by God so loving, completely pure,
he made it all in days of yore.

One rule only did God give man,
that seemed as if obey you can,
not to eat the fruit of *one* tree,
from that *one*, you had to flee.

But Adam, the first of man,
was tricked to think: "eat you can!"
and Eve his wife, they both did sin,
then fell earth, with all therein.

For evil Satan, who had fallen
from an angel to a demon,
tricked them both, with fatal lies,
doomed all men under the skies.

For men who sin against our God,
when they cease on this earth to trod,
must give payment, for works unwell,
they must be thrown down to hell.

But God did know just what to do,
his plan was perfect, I tell you!
He sent his one begotten son,
born on *Christmas* for everyone!

Yes, his son became born of us,
completely pure, without a fuss,
he was perfect, without sin,
like none else this earth within.

All things lay on this sinless child,
and he grew, so meek and mild,
as a man he taught of God
but received no glory and laud.

For though he was pure, meek, and mild,
he was the one men reviled,
although how pure and sinless he,
he *died for us* on the tree.

On a roman cross he died
for *our sins* he was sacrificed,
and buried in a tomb was he,
after three days *rose* triumphantly!

For he conquered him through death,
who fights God with all his breath,
yes, tis Satan, whose fear grows,
(death was conquered when Christ rose!)

We all from hell can now be free,
but you *must* do this, you see:
repent to God of all your sins,
and trust in Christ, his army wins!

Not one good work that you can do
is more than what Christ did for you,





The Two Friends

By ABIGAIL

Once a upon a time there was a blue elephant. And one Day she got her clothes on and went to pick flowers And she saw a bunny! And the elephant And the Bunny were good friends .they ate together. They played together. And then it was time for bed goodnight the elephant said goodnight the bunny said. And one day the elephant invited the bunny For Christmas dinner And the bunny said yes of course do you want to come in why it is cold out here thank you so the elephant came in do you want some tea why thank you I will said the elephant I will bring food said the bunny why thank you said the elephant it is Christmas Eve do you have Christmas presents to work on I do said the bunny yes I do see you tomorrow said the elephant Christmas Day goodnight said the bunny said goodnight said the elephant. The bunny came early one Christmas day to help to get ready why thank you for coming early to help me oh your welcome and then the Christmas party began hi Claude hi Olivia hi Oliver hi Rosamond with her four cats and Annie with her dog the elephant and the bunny said hi they said MARY CHRISTMAS everyone said.



the end

Flow Trampoline Park

By ALEXANDER

Well, Flow is an "airsports" park, that has a ton of trampolines, and and cube pits. It also has stairs you can jump off of and land in a giant deflated-ish pillow. We went there on Aaron's birthday, and we went there again with a church in Rock Falls.



Sleepover

When we had a sleepover at Grandma Mary and Grandpa Jeff's it was right after the Leagues competition ended, and I was very sleepy so I slept most of the way there. Then when we arrived I got out, and we had dinner and played games until around 9:00. Then we went to bed, and nobody woke me up so I woke up at 9ish when everyone else woke up at 7. Then we got a bunch of succulent plants from Grandpa Jeff to take home. Then we went out to eat for lunch and drove back home.



Alexander: Kibi are mischievous like Merry and Pippin.
Most kids are mischievous.
Andrew: Cheeky? Like Thomas?
Alexander: Yeah, kids are usually mischievous and cheeky.
Andrew: Are you implying that you are mischievous?
Alexander: No, I'm implying that you are.



Zion Covenant

By AARON

My favorite series that I read this year was the Zion Covenant. It is a story about people trying to help Jews in WW2. The main characters are a German-Jewish violinist and an American newsman, who end up marrying, and then they try to help other Jews get out into England and America. The story covers many different characters and locations, including the Jews struggling against the Arabs in Palestine, oppression in Poland and Germany, and the capture of Prague. The series ends on the beginning of the second World War.

The Princess and the Three Knights

By ABIGAIL

The king did not know who was the right knight for the princess so he had tests for them they had to fix houses and they ran races they had to find their way through great dark forests they lifted barrels of water and cleared fallen trees in the king's field and wrote essays of loyalty and faith and then there was only three knights two of them were greedy but one of them looked kind and the princess liked him but the king did not know that he was the right one so he gave one more test they had to get close to a cliff and who gets the closest to the edge and not go off it all of the knights got so close to the edge but the third knight he said to the king I will not take her by the cliff and the king said that is the right answer you will have my daughter The end.

**My bed never feels cramped
unless I forget to take the
books out for a while.**

— Aaron

The Eagle, the Cave, and the Footbridge

By ANDREW

The Eagle, the Cave, and the Footbridge is about a boy. Now, you might expect me to tell you his name, but telling you what people call him would only be half the truth.

He was called Hamelin Stoop. Notice I did not tell you what he was named. That would ruin the story.

You see, his parents were being chased down by trackers from another world who wanted both them and their son. They couldn't save themselves, but they managed to make the trackers think they had killed their son and actually hid him in a basket on the steps of a children's home, with a note, but the note was damaged by water and rendered unreadable, except for one word, Hamelin. Which is why the children's home named him that.

Hamelin grows up in the children's home, desperately desiring to know who his parents were, and what his actual name was. His life is hard, and on his tenth birthday, everyone forgets about it.

Hamelin runs away from the children's home and falls into a strange cave with an eagle. The eagle leads Hamelin to a footbridge he must cross.

The Hamelin Stoop series is good in general, but expect some allegories that you don't know what they represent.

The Hobbit

By ALEXANDER

Well, the Hobbit is a story about Bilbo, who doesn't like going on adventures. Nevertheless, he finds himself going off with 13 dwarfs and a wizard, to kill a dragon. The adventures he takes totally change him, and he not only returns with a sword and gold, but also begins to take many more adventures,—much unlike a hobbit—though he becomes much less liked and popular.



Attalia loves listening to books



SUMMER WORK-STUDY LEADERSHIP PROGRAM

By AARON

In the summer I joined a work-study program led by our pastor, because they got a grant. The program lasted for 8 weeks. The first week we did Teen VBS, which was basically the same as regular VBS. It was supposed to prepare us for helping with the real thing the next week, but the training we received was actually only applicable for a few jobs. Fortunately all I had to do was set up decorations, which wasn't hard. Then the next week we helped out with regular VBS, but all I did was put up pictures and talked for a little bit about China.

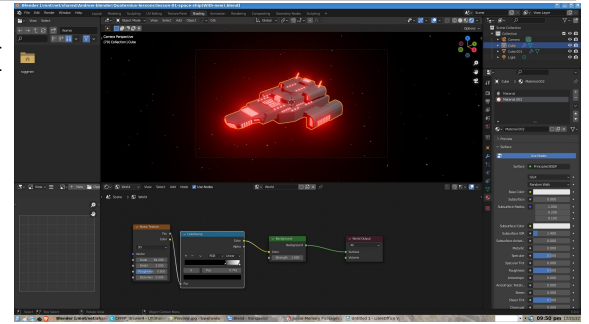
The weeks after that we went over to the Spark Center (which was in a food pantry) and learned about things like food deserts and urban gardening. We also helped with a popup food giveaway, which was basically the only hard thing we did throughout the entire program.

Then we did things like tour Native American museums, visit rent houses, and eat out every day for lunch. It was fun, and slightly instructive, but not really work.

Then on the last day we went and visited a camp and went on the high ropes course. I was the first person to go all the way around, and one out of only 3 to complete the course. It had a zipline at the end, which was fun. The only problem is that the ladder wasn't tall enough and I was too light to pull the attachment hook down easily. The lady kept saying "Pull harder!" and I said that I was already hanging from the rope. Anyway...

Then after that we were supposed to go home, but they decided to tour a manor that was built by a person in WW2 that built a house patterned after a castle for his summer home. Which was cool, but I was slightly anxious to get home to do more Bible Bee studying (because the Summer Study had just ended and I had a lot of verses to go through.)

After that we went and got malts at Sam's Club, which was fun, and then went back to the Spark Center and back home. It took a long time, but was still a fun way to end.



My Continuing 3D Career Training

By ANDREW

In the first lesson Quaternius showed me step by step how to make a lowpoly spaceship, in the second one we discussed mistakes that I made on a model for BibleAdventure. The model was pretty good, but I had joined some quads together wierdly to save resolution and he kind of looked like a blob. I had tried to use the subdivision surface modifier to get more polys, but unfortunately the subsurface also smoothed him out into kind of a blob-like shape.



Attalia learns to walk

By ABIGAIL

On fathers day Attalia was walking to mom
dad mom dad mom dad mom dad mom
dad mom dad mom dad mom dad mom dad



ROWAN EILEEN RUGG

BIG YEAR

By JOANNA RUGG

2022 was a big year for us! Our house was listed on the market the morning of New Year's Day and our offer was accepted three days later. We got the keys to the house in February and promptly started tearing much of the place apart. Come April, we moved into the house with no kitchen or floors. Over the coming months things started looking much more livable in time for our best addition. In the early hours of July 19, Rowan Eileen joined the family. Parenting has been the most exhilarating and exhausting project we've taken on yet and we wouldn't have it any other way. 🏠





CHESS.COM MARATHON LEAGUES CHAMPIONSHIP

BY AARON

Early in 2022 Chess.com announced that they were going to make a new type of competition called Leagues. The way it worked is that you would be randomly divided into groups of 50 people, and you would gain points (called trophies) for every game you won or drew, and if you were in the top area of your division you would advance. There was also a \$200 minimum prize for the group that got to Champion league first.

The scoring system was basically this: For games where both sides have 1 minute to make all their moves, you got 5 points every time you won, and 2 points every time you drew, but you could also gain bonus points for winning multiple games in a row.

(I'm pretty sure that the reason they made the competition was because they were trying to make a new interface which most people didn't like as much as the old one, and the rule for Leagues was that you had to play in the new interface.)

There were 8 different leagues you could be in: Wood, Stone, Bronze, Silver, Crystal, Elite, Champion, Legend. And each league got harder and harder to promote in. For the Wood league, the 20 people that had the most points advanced. Then the top 15, 10, 5, 3, 3, and only the winner of a Champion division would advance to Legend.

The first leagues were pretty easy to go through, but by the Crystal and Silver league it started getting harder. I got through the Crystal league fairly easily because I got into one of the easiest divisions, but I still stayed up later one night playing

Then we got to the Elite league, and if I got into the top 3 I would make it to Champion and win \$200. Unfortunately, everyone else knew that too and would be trying super hard to make it in. Mom and Dad decided that I didn't have to do schoolwork that week as long as I won kept playing, so basically I just kept playing games all day.

The first division I was in in the Elite League was really, really hard, so I dropped out and joined a different division after the first 2 days. At the beginning the leaderboards kept fluctuating, but eventually the highest players kept getting higher and more people dropped out. I mostly stayed around 2-4th place going into the last night.

Dad also found out that one of the players was cheating and reported him to the staff. He was removed and was no longer a threat.



Aaron's clothes and snacks changed, but his single-minded chess focus didn't.



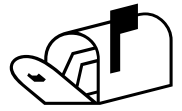
Rank	Players	Trophies
#1	SpanosNomikos	6,736
#2	SmirnovAlexa...	6,336
#3	amrugg	6,238
Advance to Champion		
#4	kynas	6,220
#5	VoronaVlad86	5,803

On the last night there were basically only 4 competitors viable: Someone from Greece, who was in first place and had about 400 points more than everybody else, and then in 2-4th places at various times was a master from Russia, someone from Lithuania, and me. All of us had been staying up really late and playing chess games all day.

Unfortunately there were only 3 spots to advance to Champion league.

I decided that I wanted to stay up all the way until the end so I went downstairs after dinner and kept eating peppermints and playing games...

(continued on the Sports page)



DEAR TONGY AND NELS

Q: I'm having trouble trusting my partner.

How do I build up my trust with him? –

Savage Sam

T: Jump off a cliff, and hope he catches you.

N: Buy a gun.

Q: I'm going on vacation. Where should I

go? – Vacation Victor

N: The opposite side of the globe from Tongorango.

T: My hometown.

Q: I went fishing last night and didn't catch a single fish, How should I fish? –

Fabulously Fishy

T: Go fish in a local tuna fish factory.

N: Pay me to do it.

Q: What is the best birthday gift? – Birthday Boy

T: Eyeballs.

N: Wads of money.

Q: Who are your favorite celebrities? – Crazy Celebrity

T: What's a celebrity?

N: Me.

Q: What do I do if someone calls me a jerk? – Jerk

T: The best way to deal with situations like this is to cry a lot.

N: "Sticks and stones may break my bones, but words can never hurt me."

Q: What is the best way to make bread? – Bashful Baker

N: Use whole wheat flour and check all the ingredients carefully. This makes it both healthy and filling.

T: Figure out how much bread you want to make, and then keep pouring in more and more yeast until you get enough dough. I generally use a few cups of yeast and half a cup of flour. This makes it light, fluffy, and economic.



The Tongarango Party

By ALEXANDER

Well, you see, one time I got a purple Brachiosaurus, and mom glued googly eyes on him. Unfortunately, those eyes fell off, so mom sowed fabric eyes back on him. Then, Dad told us stories about Tongarango's eyes falling off. Eventually, we got to 100 stories, and then threw a big party.



Mom made a cake, and sprayed it with purple food coloring. We also played a bunch of games based off things from the Tongarango Show.

BEST KID QUOTE OF 2022

"WHEN I GET TO HEAVEN, I HOPE GOD MAKES ALL MY TOYS NEW THERE,
AND THAT THEY ALL COME ALIVE!"

– ABIGAIL



PIANO RECITAL

BY ABIGAIL

One day at the end of May in the year of 2022 there was a piano recital And I played two songs far away and a special tune. And after it we had cake. the end. ♪



"Fermilab's demonstration computers are surprisingly easy to hack into access the code for the What atom is this? program. But don't worry, I didn't actually change anything." – Aaron



Sleep-overs at Grandma Sharla and Grandpa John's

BY AARON

When we go for sleepovers at Grandma Sharla and Grandpa John's house we usually have dinner, and dessert, and piano lessons, and games. Then we watch a movie before bed, and then we go to sleep. In the morning, we all get up extremely early to optimize our time there. This year they also took us to Blackberry Farm and Fermilab on sleepovers. Blackberry farm is still fun, although Abigail had the best time. Fermilab had a lot of hands on displays about science.



MOM SAYS, "ANDREW STOP BOUNCING OFF THE WALLS AND USE THAT ENERGY TO TAKE THE SHEETS OFF YOUR BED FOR THE WASH."

"THAT'S WHY I STOPPED BEING ENERGETIC A LONG TIME AGO," SAYS AARON.



Abigail learns to cook

BY ABIGAIL

For Christmas I got a cook book and we made stuff with it. we made cookies and peanut butter cups. we made burgers, mac n cheese, and BLTA sandwiches and apple they had bacon and cheese in them. and we did school day blueberry pancakes. they were good.



Thanksgiving Blessings

Thankful to be together with lots of family at Grandma Rugg's house for Thanksgiving 2022, with more desserts and Christmas houses than we can count.

Making Ninja Bread Men

BY ALEXANDER

When our friends came over, we wanted to bake cookies. We made ginger-bread men with cookie cutters in the shape of ninjas. Then we decorated them with frosting, and little candy balls that came with the ninja bread.



The Tea Shop

BY ABIGAIL

After we went to grandma lorna's house we went to grandma sharla and grandpa john's house. we had fun there and we also went to a tea shop we got tea there we drank tea and we bought tea we had fun. the end!

BEWARE OF
BEETS



Family size
now means
#25 boxes or
bags to keep
teen/tween
boys fed

"It's NOT FAIR,
HE GOT BORN
FIRST!"

— ALEXANDER



FUN FRIENDS

By ANDREW

Elijah and Isaac Sturk came over a lot during the summer. We liked to play made up games such as Guards or variations of real games such as (I just made these titles up now, but they should give you an idea of what they are) capture-the-flag-with-guards-of-the-flag-blindfolded and Nerf-wars-with-avacado-bombs. We probably play Guards the most.

In Guards, one team, the gaurds (Usually made up of Aaron, Elijah, and Alexander or me) tries to stop the Ninjas (Usually made up of Isaac, Abigail (If she wants to play), and Alexander or me) from getting from their home base to the other base (Usually the opposite sides of a section of our yard) and back. If the Guards tag a Ninja outside of their bases, the Ninja has to freeze until the other Ninjas tag him. If the Ninjas can get to a base 10 times (or go from their home base and back, depending on what we're doing), the Ninjas win. If the Guards tag all the Ninjas and keep all of them frozen, then they win.

After doing Guards, we usually have ice cream and go inside to do inside games, such as capture-the-flag-with-guards-of-the-flag-blindfolded.

THREE GIRLS AND ONE BOY

By ABIGAIL

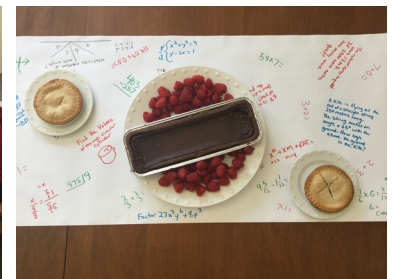


We had friends come to stay over night with us. They had Three girls in their family! And they had one boy. We had to get sleeping bags for Aaron and Andrew and Alexander, and we blew up the air bed for the 3 year old boy and we played with them. we played nerf guns and they stayed for two days. The end.

My Math Party

By ALEXANDER

It was winter and we were out shoveling snow. I had recently finished my math book, and Mom was planning a party. So, when I came in, I was surprised to find the room all decorated, and the sign had an "Alexander" on it. Then I had to do a math case, to get the new book I got. Everyone had math problems they could do to earn candy and everyone got to eat some Pi.





Meeting Rowan

By ABIGAIL

One day Alexander said that Aunt Joanna and Uncle Caleb and Rowan were coming but I thought he said Uncle Ben Aunt Nicole and Rowan was coming but I heard wrong. Mom sent me out to cut marigolds so I cut some marigolds. then I found out that Aunt Joanna and Uncle Caleb and Rowan was coming we all loved her even Attalia loved her. The end.



"Attalia you need to come to terms with the fact that no two atoms in the universe can exist in the exact same location, no matter how many times you ram your head into the couch."

— Andrew

"That was in the Hypocrapha right?" —Alexander

"Why talk when you can B-bop?" — Nate

"All it takes to get Attalia to sleep is a lot of patience and a lot of bouncing." —Andrew

3D graphics in [BibleAdventure](#)

By ANDREW RUGG

Last year Aaron told you about how we had to go from 8-bit to 3 Dimensional art. I was glad when this happened because I couldn't really help without there being some thing 3D related for me to do.

However, 3D art is filled with many styles and we had to choose one. At first we went for the style known as low-poly for the characters. As you can see here, the low-poly style contains objects with almost every edge sharp, solid colors, and more sharpness instead of rounding. However, we were using the stylized style for the terrain.

As you can see here, in contrast to the low-poly style we have a slightly higher resolution, mostly smooth edges, and more detailed surfaces rather than solid colors.

The problem we had is that the styles had to match up. Otherwise, it looks like the terrain is from one universe, and the characters from another.

So we had to recreate our characters as stylized

characters. But it's harder to change characters from low-poly to stylized than you might think. You see, even though the face count isn't that much higher in stylized than in low-poly, you can't just add detail and smooth them to change the style. For example, the characters' nose in low-poly style is basically just a big block. However in the new style the nose is built into the character's face, and not just an object on the face. So we had to recreate our characters. Unfortunately, I didn't have enough experience to just make characters from scratch.

So we found a boy and girl online that fit with the terrain. Unfortunately, even though they would look like they were from the same universe, the boy looked more like a Japanese warrior. So after a long period of trial and error, I was able to take the boy's head, stick it on the girl, and change the girl's body to look like a boy. For the trees, Quaternius (my teacher) had recently released an entire pack of stylized tree stuff. So I took that, edited it to suit our purposes, and exported it to BibleAdventure.

For the monsters, the orc and goblin were actually scaled down versions of a giant troll that I had edited to look like goblins and orcs. So I was able to take them, have the computer smooth the edges, and edit the texture to change their skin. The rat and spider were originally low-poly models from Quaternius, but they were either supposed to be giant spiders and rats, or they had too many faces. So with just a little bit of editing them, I was able to turn them into stylized monsters.





GROOVY

By NATHANIEL FRITZ

Nathaniel and Mary have settled into a solid groove in Columbia, MO with their two dogs, Penny and Kermit. Nathaniel has now spent six and a half years at Veterans United Home Loans and continues to find gainful employment there despite his penchant for eating all the Rold Gold Pretzels and grapes that are offered in the snack areas.

Mary is now through five years of working at The Bluffs nursing home and continues to brighten all the residents' days there on a continuous basis. This year, Mary's mom became one of those residents and Mary's been grateful to be able to take care of and spend valuable time with her mom in this season of her life.

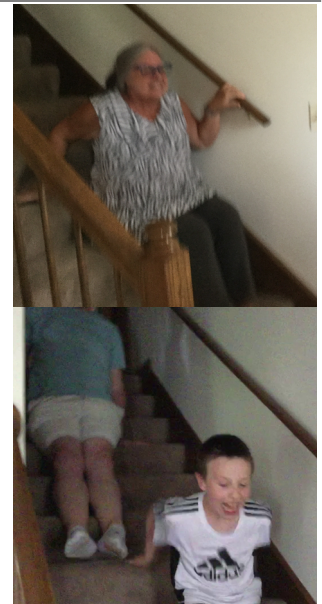
Penny and Kermit continue to be good puppies when they're not fighting over Wheat Thin crackers. Penny had surgery to repair her CCL (the dog equivalent of the ACL) in January and was back to chasing after footballs in the yard by April. Kermit enjoys barking at his next door neighbor friends Birdie and Bogey and being told that he's a good boy.



The Sliding Down the Stairs Championship

By ALEXANDER

Well, it wasn't abnormal to see us sliding down the stairs at Grandma Sharla and Grandpa John's house. But it wasn't until Mom's cousins, Uncles and Aunts came that it really got popular. Me and my brothers were the best at sliding down the stairs races, but it sure was fun to have more players. I'm pretty sure we beat everybody with our special sliding technique. You see, the trick is to put your hands on the floor, and when the race starts, you push forward with all your might, it shoots you down the stairs at top speed. And when the turbo stops, you just keep sliding.





KEITH'S CHRISTMAS TREE FARM

By ALEXANDER

The Christmas tree farm was only about half an hour away. When we got there, we took a saw, and went out to look for Christmas trees (the ones near the road were way too small). Mom said that the trees were too tall or too big. Eventually we found a tree we liked, but we wanted to keep looking. So I stayed back to guard the tree while everybody else looked for more trees. Eventually they called me, and we decided on a different tree. I was the last person to saw, so I sawed it down! 🌲



CASTLE ROCK

By ALEXANDER

One day we went to visit a church in Rock Falls. Before we went home, we stopped a giant park named Castle Rock with HUMONGOUS rocks. We saw a really big one, and we all tried to get to the top of it. I got up first,

so I was the king. It was really fun, and we pass that park every time we go to that church. 🏰

Studying for the Bible Bee Constantly and Everywhere

By ANDREW

Studying for Bible bee was hard. The summer study was super easy to pass, because the Discovery Journal made all of their questions really easy. However, the next rung was the qualifying test, which would allow the top 120 contestants to move on to nationals. The qualifying test would be based on anything in the Discovery Journal, along with several other specified cross references. It wasn't too hard because we knew what we had to study, and we managed to score pretty high on the test. However, getting in the top 120 just qualified you for nationals. To get into the next rung, we had to study anything related to the text of Isaiah 40-46 and the text of Isaiah 40-46 and memorize 692 more verses (not including the 48 we had to memorize for the summer study) to pass the MCT (Multiple Choice Test. Yes, the qualifying test was also completely multiple choice questions, they just couldn't think of a better name). Those whose scores were in the top 15 combined with that of the aural round, (in which we had to recite 12 passages in eight minutes, each mistake deducting five points from the passage you made a mistake on up to a maximum of five mistakes per passage, when you could lose no more points) would advance to the semi-finals. There were 5 main things to study. Study passage content, Cross reference content, Memory passage content, Hebrew words, and historical and cultural background. Surprisingly for everybody in the Bible Bee, the MCT was filled with questions that were so distantly related we had not even studied them. Fortunately though, the test was graded on a curve, so everybody was surprised by the MCT and Aaron managed to get into semi-finals. 📖



I would study in the leaves,
I'd study there if you
please...



~~Wanted~~ I Mean I Want to Find my Buddy Again

MISSING PERSON NELS

BY AARON

One night we were trying to find Nels for a Tongorango story and we couldn't find him. At first, we weren't worried, but after a few days nobody could find him still. We looked under the couch, behind the cupboards, in all the closets, and in all the desk drawers. Andrew told Alexander to look for Nels in his bin, but Alexander didn't think Nels was there.

Several weeks passed, and we still hadn't found Nels. Then Alexander went to go look in his bin for something else, and he found Nels there. So then we had a party in celebration of Nels. Mom made the cake shaped like a teddy bear head.



Police Diamonds

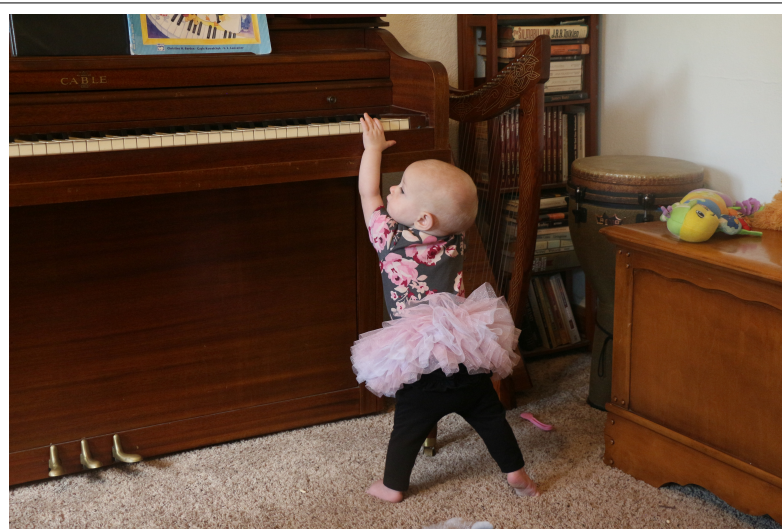
Tales from the Road to Great Grandma's House

BY AARON, ANDREW, AND ALEXANDER

Police Diamonds arrested Chamberlain Sinclair slipping cats into toilet bowls. Chamberlain Sinclair smashed diapers grade, because Pet Rock Morty punched Chamberlain Sinclair, because he tripped in jail when Chamberlain Sinclair yelled open sesame, and he fell because the door opened.

Byron Genoa was eating paint class while tickling pigs before Chamberlain Sinclair licked cats well. After suddenly Madison tripped on pigs pretending to snore like tuna eating grizzly bears and hit Chamberlain Sinclair non-accidentally Chamberlain Sinclair's look-alike Police Diamond's pumpkin machine exploded into diapers. "Storks!" Chamberlain Sinclair, declared smiling evilly. "Kaboom!" Madison declared. Police Diamonds ate Chamberlain Sinclair's egg carton apple so Chamberlain Sinclair fell into his egg carton vat. The vat collapsed easily because Chamberlain Sinclair flew quickly smashing the shoelace iron. A "The End"

Once upon a time, Byron Genoa, Chamberlain Sinclair, and Police Diamonds cried open sesame while playing with Pet Morty the Rock's birdcage Chamberlain Sinclair bought him.



Mozart Impersonator

RECENTLY AN IMPOSTOR HAS BEEN SNEAKILY ATTEMPTING TO PLAY
ALL MUSICAL INSTRUMENTS



REMEMBERING GRANDMA McCANN



*Great Grandma (Gumball) McCann
1931–2022*

This year, we said our final goodbye to our Great Grandma Eileen McCann. Being blessed with many years of good health, she was frequently seen playing on the ground with her great grandchildren. Even in her last year of life, nothing brightened her face more than seeing and holding her great grand babies. She will long be remembered by her grandchildren as the kind and quiet grandmother who loved to be with family. ■

Memories of Grandma

"I remember how she always liked to play solitaire on Grandma Mary's iPad, and how she used to play Go Fish with us." –Aaron

"I remember how she always looked happy, and loved playing checkers." –Andrew

"She loved to play solitaire, and she was great at it. She couldn't believe that I was already nine when I saw her at her 90th birthday." –Alexander

"On her 90th birthday we gave her a really big card it was a little more than a foot. She lived a long time she lived 90 years." –Abigail





My 13th Birthday

By Andrew Rugg

13 is a very significant number. And it is NOT unlucky. This year, when me and Alexander were decorating for Aaron's 14th birthday, we put a wall of streamers in front of Aaron's door, that Aaron would have to charge through to get out. When I got out of my bed on my 13th birthday, I was surprised to find that Alexander and Abigail had done that to me. I broke it down like they wanted me to, unlike Aaron on his birthday, who ignorantly crawled through the hole we had left to get in.

My first present was a laser gun drawn on cardboard from Abigail. It was a lot of fun to "set it on the tickle calibration" and get Attalia with it. The laser gun was opened before any guests came. All the other presents waited till all the guests came.

Later Uncle Ben gave me a (no, not a watch) a Chronograph, which can regular time, military time, the date, and has a stopwatch. From Uncle Brent I received a great supply of treats. All the Grandparents gave me Blender courses that I had picked out specifically. Pastor Griffin gave me two nerf guns, one of which was a super powerful not even a Nerf, nerf gun (it was actually an Adventure Force gun) and the other was a supersized version of the one I asked for. Alexander gave me a Civil war movie, which I am really excited about watching.

Last year, when Aaron turned 13, Dad gave him two wooden training swords, and an actual sharp battle ready Excalibur sword, so this year, my two final presents were two metal shields (to go with the swords) and a real battle ready sword named Windsong. Windsong, called the sword of kings, is a heavy two-handed broadsword with great length, and a regal Lion on it's crosspiece. I got to cut my cake with him, and pop a balloon.✕



Attalia's Birthday

By Abigail

It was a lot of fun. We had a lot of balloons pink and purple balloons and we had cupcakes and cake and Attalia got presents. the end



Alexander's Birthday

By Alexander



Well, everybody stayed up really late, so naturally, I was the first one to wake up. So, I woke up, and got my book-light and explored a little. Soon Mom woke up, then Andrew, then Attalia. Then Me and Attalia played in the balloons, and They made breakfast. Then

everybody else woke up. Then we opened the presents. Later, we ate macaroni and cheese and did madlibs. In the evening we roasted marshmallows over the fire. Then we opened the last presents, and watched the movie Andrew had given me.

Aaron's Birthday

By Aaron

For my birthday we went to the Flow trampoline park, which had things like trampolines, jumping pads, pits of foam blocks, and a ninja course. That was fun, even though the music was loud and annoying.

Then we went home and ate macaroni and cheese, and then I think I probably did some Bible Bee studying at some point, because this was during the Summer Study. Then the grandparents came over and we had dinner and I got presents, most of which were books. I think I've finished most of them by now.

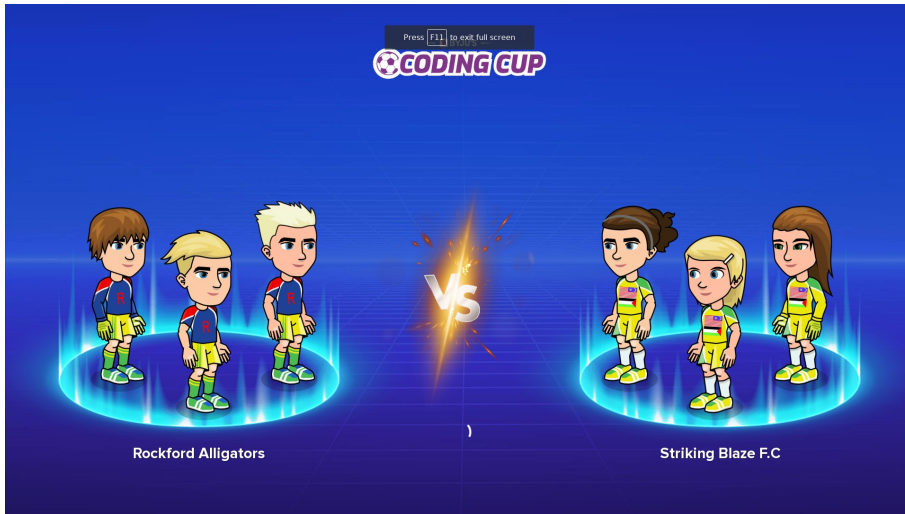


Abigail's Birthday

By Abigail Rugg

My birthday was a lot of fun it was a unicorn-rainbow birthday. like unicorn-rainbow everything the dessert, the food, the presents. And one of the best parts is my family. I love them. The end.





Soccer Coding Cup

BY AARON

After we got back from Bible Bee I saw that Tynker was holding a Coding Cup for programming AI soccer players. There were three players on each team: A goalie, a striker, and a defender. The goal was to score more goals than the other players in order to win games. If you won games, you got rating points, and whoever had the most rating points by the end of the round would win prizes. There were four rounds, but I missed the first one.

My strategy was basically to have the defender and the striker both have the same code, and both try to run for the ball and steal it from the opponent, and then run directly up to the goal and kick it in. I tried doing things like passing and having the defender stay back, but it didn't seem like it worked with the Tynker setup.

The first round we got 13th place, and then I added some evasion strategies and we got to 6th place in the next round. Both of those ranks were enough to get one of the smaller prizes, but not enough to get to 1st, 2nd, or 3rd.

On the final round the prizes were increased for getting 1-3rd, so I wanted to try harder. I didn't actually change much of the code, I mostly just changed stats around. There was a lot of luck involved because there was a 35% chance that a steal would work, so if it worked out for you in a match you would win, but if it didn't you would lose.

The round ended at 2:00 AM our time, so I woke up at 1:00 AM to keep an eye on the leaderboard. I ended up getting 2nd place, but I was at first sometimes too, so it could have gone either way. Anyway, it was a fun experience, and I won some prize money.



(Leagues Championship Cont. from Challenge)

BY AARON

Dad stayed up with me and told me my ranking so that I wouldn't have to waste time looking it up. I made it to 2nd place before the other competitors (who had been taking a break) started playing again.

So then I messaged the Russian master and told him that he should try to tie for 3rd place with the Lithuanian (because that would mean that all of us would advance). He replied in Russian that the other person wasn't talking to him. I asked him if he wanted to tie for third place with me and he said that he didn't trust someone he'd never met (understandable) and that I should tie with the Lithuanian and please speak Russian. So then I messaged the Lithuanian (all this was happening in between frantic games and pasting stuff into Google Translate) and asked him if he wanted to tie with me, and he said (in English this time) that he would, so then we both stopped at 7,001 points, tying for third. So then we all advanced.

Apparently the first players to make it to Champion League weren't enough to start a division (there were only 33 players, and 50 are needed to start a division) so some of the people that didn't make it to Champion in the same week I did made it in on the second week, including the person who got 5th in my division. 🏆



Aaron the Legendary Champion



Dressing Up as Grandpa Jeff

By ALEXANDER

It was Halloween, and we had to get candy. A lot of candy. A wagon-full of candy. A truckload of candy. We needed just the perfect costume. The perfect costume is hard to choose, especially when it concerns such an important matter. Suddenly, we came up with the scariest, candy-eating, costume! Grandpa Jeff. By the end of the day we came back with more than a wagon-full of candy.



Wearing [#plaidereverday](#) while enjoying a candy corn float



Trading the goods



Hugging the houseplants



Videos about solutions to pumpkin problems based on Greener View Gardening

Attalia's Fashion

By "ATTALIA"

One day I went to the boutique shop and found a headband then I found one more then one more then one more then one more so I ran to the fitting room I tried them all on and I loved them so I bought them. The end.



The Simkus Girls

By ABIGAIL

I liked to play on the trampoline and go in their forest and play with the girls. we ate pizza bread and we made our own game. the end



GREAT MINDS DRESS ALIKE

ATTALIA'S FIRST HAIRCUT



My First Pet

By ABIGAIL

My first pet was a bug its name was fuzzy wuzzy. I had to clean his cage and one of my friends really liked him. he will turn into a moth in spring. he likes to eat leaves.



Kirsten Dress

By ABIGAIL

One day mom made me a Kirsten dress like from the book. it had blue and white stripes and white buttuns.



YELLOW

Will yellow be Attalia's favorite color? Or is it just the only one she can say?





Alexander's Spaceship

By Alexander

I went back over to the blaster-engine motor I was trying to fix. It broke because yesterday I was a little too peppy with all the coffee I drank, and misplaced the ketchup, which ruined it, so it flung us into

an asteroid belt. Of course I immediately took action. I ran to the engine, and picked up the ketchup! Unfortunately, that wasn't enough. We were spinning out of control inside the asteroid belt, so I knew I had to kill the engine. I kicked it, but it didn't konk out. I leaped onto the massive engine, and smashed and kicked it as hard as I could, but it still kept flinging us toward a gigantic asteroid. I got off and ran back to grab my empty soda bottle. I threw it with all my might, and the bottle smashed into a million pieces... but it shut off the engine!1

I inserted the tube into the gadget, which stuck to another gadget, which stuck to another tube, which stuck to another gadget, which stuck to another tube, which stuck inside the generator, which stuck inside the frame. I put the SE12 in next to it. I burnt in the metal fuse next to the 7809JF, and burnt it into the SE12. I turned off YouTube and Airplane Mode on my I-phone, and shut up the metal case with the blaster-engine motor in it. I burnt the engine case back into the Metal Background. I walked back to the dashboard. It light up! Our ship had power again! I flipped on cruise control and went back to lunch.

The next day I heard a beeping sound. I looked out the windshield, and saw that we were heading back into the asteroid belt. We had just used the 911SHG to surge the power enough to steer away from it 2 days ago! I jumped into the seat, grabbed the lever, and flipped on the NC123 and pulled the lever with all my might. The 911SHG flashed, and NC123 took over, and we spun 180 degrees.

Planet $f(|x|) + f(x) dx - 2x \cos x dx$ was nearing. I pushed out the throttle, and aimed toward the planet. I pushed the throttle until we were going 1 kilometer per second. Up it came... faster, and faster, and fas -

WWWWWWWWWHHHHHHHHHHAAAAAAAAAAMMMMMMMM
MM!!!!!!!!!!!!

But fortunately for me, they sent out a search crew a month later. And NASA kept me to clean the rocket-ship bathrooms. —

🐱 The Cat's Side 🐱

BY ALEXANDER RUGG

A disruption was caused on the peaceful afternoon of August 27th. The Cat Kind of the city of Rockford IL, USA were in the golden age of their reign, and in the prime of life. Hyena, a well-respected and well-known cat, had just found a comfortable and cozy place to rest. Little did she know of the dangers of the place. We interviewed her later, and she said, "I was wandering along, until I found a shelter. So, naturally, I went over and rested there a while. Not long after, a little boy about sixty-three years old came. And, at his command, the door started to slowly close. I knew that it was a trap, and it was for my demise. I knew I had to take action. So, I ran out as quickly as I could. It was so surprised, that the door rolled back up again. Of course, after that, the door would not close."

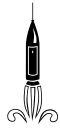
Further inspection of this devious trap will be made, and the boy will be taken and examined thoroughly before the judge. His penalty will be harsh, for such evil crimes will not be tolerated. 🐱



Grandpa Jeff makes Attalia cry

BY ABIGAIL

We were at grandma Mary and grandpa Jeff's house and whenever he picked her up and smiled at her she cried the end.



3D Printing

By ANDREW

Last year we got a 3d printer for Christmas. I like anything 3D related, so this was right up my alley. 3D printing can be really hard or really easy. A lot of times it's because of the model you're using but oftentimes it's just that the filament (the material the printer is printing) you're feeding into the printer is *really hard to use*.

For example, the most commonly used filament is PLA (Polylactic Acid). However, there are many different kinds of PLA. There's Wood PLA which has wood fibers woven into it to make it look like wood, there's Silk PLA which is shiny and cool looking in other ways, there's even carbon fiber PLA which has carbon fiber mixed into it, among many other variations of PLA.

This year, for valentines day, I bought some pink silk PLA for Abigail and printed a heart jewelry box. Despite the fact that I told the printer I was using a .4 mm nozzle instead of a .5 mm nozzle it worked out really well.

However, when later in the year we wanted to print a Minecraft piggy bank to give to Kinley for Christmas, we discovered that when printing Abigail's heart jewelry box, we discovered that we had gotten it off easily.

Silk PLA is actually very hard to use. We had to tinker around for a long time with the settings before we could get it to actually work. And even then, we discovered that sometimes kilogram spools (Most spools of filament on the market are 1 kg for about \$10) are so heavy that the printer has a hard time turning them. So what we had to do was, whenever it started getting tight, we had to manually turn it so that the printer had plenty of slack.



IF YOUR BRAIN WAS A WEB BROWSER...

(Self-described)

- Mom: My brain has 100 tabs open and running at all times.
- Dad: One tab full screen.
- Andrew: I have one tab full screen too, but sometimes it plays pop-up ads.



Laser Engraving

By AARON

In the summer Grandpa John gave us a laser engraver for engraving things on wood/metal and cutting out wood. After we got it set up, we were able to make all sorts of things. You can burn wood using a borax solution, which basically makes it look black, or you can not use a borax solution and engrave it directly into the wood, which you can feel. So far we engraved personalized cutting boards, signs, and wooden ornaments, and a few other things. Eventually we are supposed to be able to print metal business cards too, which will be interesting.



Aaron Laser burned this ornament using a borax solution

Building a Platformer Game

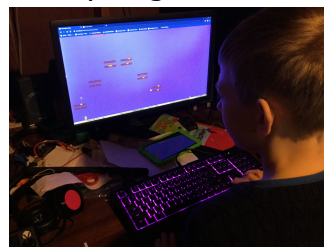
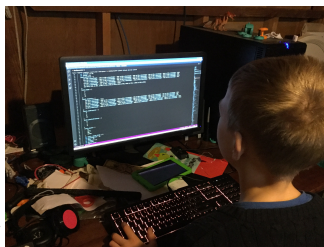
By AARON

I wanted to make a platformer game because I wanted to make a game that used physics rather than just a top-down game. So I started out by making a gravity system, which was fairly simple; I just had to increase the player's velocity by a certain amount whenever he was falling (I just kept tweaking the speed until it looked fairly realistic). Then I had to figure out when he wasn't falling, which was pretty easy, because I just had to check whether he was on the ground or on a platform. The problem was that if he was right next to a platform and touching it, he had to fall, but if he was on top of it, he wouldn't fall, and he could jump. I eventually checked whether he was on top of a platform and whether he was trying to move horizontally into a platform separately.

Then I made it so that you could hold the down arrow to slam platforms, which would either flip over or lower the platform, so that you could reach new treasures.

After that I wanted to make some powerups, so I made health crates drop and powerup crates drop. I made three different powerups: One that gave you a jetpack, one that made it so that you gained health when blobs attacked you, and one that draws all the treasure chests towards you.

Then Andrew and Alexander wanted to make their own levels, so I built a level editor for them. It got pretty crazy if you did 500 blobs, 500 treasures, and 100% frequency of powerup drops, but it was pretty fun.



Abigail and Mom Water Paint

By ABIGAIL

we made a lot of things. we made a lot of flowers. we made a spring flower and a tulip and a poppy and a cotton boll and a succulent. The end.



Abigail Learns to Sew

By ABIGAIL

At Christmas I got a sewing machine and I learned to sew. I sewed gifts. I sewed skirts.



The true meaning of Christmas is to be found in the first six letters: Christ. Not presents, which grow old, unused, and eventually break. Not candy, which makes you feel good for a little while and then disappears, but Jesus. The only thing that will last forever is salvation by a saving faith in Jesus Christ. Even friends, family, relationships, and generosity can do nothing without Jesus. So this Christmas, start with Jesus first, and then build everything else off of that. – Aaron



It's not everyday you get to see this much family at once. But we are super grateful for the chance to see the grandcousins and other extended family at the Fritz-Chiaravalli-Priem mini reunion in August.



Uncle and Aunt's Forest House

By ABIGAIL

We went to uncle brent and aunt Liz's house. they had two dogs. we liked them. we ran with them. they liked us. they liked to run with us. we liked their forest. the end



4th of July

By ANDREW

On fourth of July, we went to aunt Liz and uncle Brent's house. Me and Aaron were the first ones in the door, so the cat took kindly to us at first, but when she saw more people coming in the door, she ran into Liz's *her* office and hissed at anyone who dared to come in the door.

Pretty soon, all the guests had arrived so we had lunch in the garage where they had set up the tables. After eating, Uncle Brent gave us these little bag things that would pop when you threw them, which we had a lot of fun doing.

Next, he got out these little color bomb thingies, which, after their fuse burned out, would start spewing out colored smoke in an amazing display.

Then, we lit off firework rockets, one of which flew out of our view and exploded, another flew down the driveway and exploded, and another flew under the car and exploded.

Then, we lit off stationary fireworks, one of which didn't work, until Uncle Brent stuck the lighting thing down to make it work. It was pretty cool though.

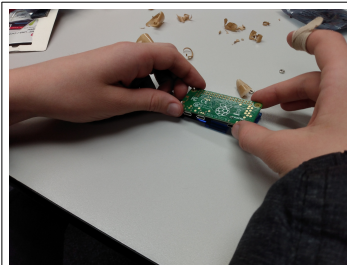


Birthplace of Ronald Reagan

Tampico, IL

By AARON

This year we went on a field trip with a church homeschool group to Ronald Reagan's birthplace. We saw the bank, a rug that he had stepped on, and then we went up to his apartment and saw a window they could go through to visit their neighbors. We saw some pictures of him, and then went to a nearby park where we saw a statue modeled after him. Then we went and played in the park and on the cannons and artillery that they had there. [After that we went down to a library that was shutting down because no one was going to it anymore, and they were giving all the books away for free. We got a lot of books there.]



Spark Center

By ANDREW

The Spark center is a technological center run by a pastor we know named Jeremiah Griffin. At the beginning of the year put together raspberry pi 0s at the spark center, and we each got to keep ours. My case was different from all the rest, so it went on much more easily than everyone else's pi 0s.



Cottonwood

By AARON

At Cottonwood airport one day the Young Eagles program was putting on an air show. We were at a park that day and saw some planes overhead, so we went back home and looked it up. There was, and it was just about to end, so we quickly went over to the airport. Only a few pilots were flying still, but fortunately we were able to get in line. I flew in a yellow plane, and we flew overhead the nearby school, where a football game was going on. After we landed, we got memberships for Young Eagles, which included a virtual ground school course. We also saw that they were working on a few planes there.



Hiking Roan Mountain

By ANDREW

When we were in Tennessee with the Simkuses we climbed Roan mountain. It was really cool, and even though we drove most of the way up there, it took a long time for us to get back to the top, even though we didn't have to forge our own path. It reminded me of the blue mountains back in china where we lived, although there, we did have to forge our own path, and then sometimes discover that you had been going for a long time in the wrong direction.



Go Karting at Volcano Falls

By ALEXANDER

Well, while we went to volcano falls, we went on the Go-Karts. Everybody was trying to get past me, and a lot of people kept bumping me. I would do



the best I could to keep the lead by swerving in the track, so no one could get past me, and it was better than nothing. We had such a great time at



Volcano Falls that I asked to go back for my birthday. That was even more fun because I got to race my aunt, uncles and grandpa, in addition to my brothers and dad.



ARK

By AARON

Earlier this year we went south to see the Creation Museum, the Ark, and some friends in Tennessee. The Ark was really big, and had three floors. When we went inside we saw things like simulations of various types of boats that were supposed to survive the flood, and how they crashed while the real Ark didn't. They also had exhibits where they showed how Noah might have stored food and water, cages for the animals, and gift shops where you could buy stuffed animals and things like that. They also had a petting zoo where you could see kangaroos and pet goats. There was also a playground that had ziplines and swings, which was fun.



Going to Tennessee

By ALEXANDER

We were going to Tennessee, and we were to the Creation Museum, The Ark Encounter, and the Simkus' house. The Creation Museum had a lot about Creation and History. The Ark Encounter had a lot about the flood and, the ark, and Noah and his family. The Simkus' house had a lot of kids, and by far was the best.



The Bible Bee Trip

By ALEXANDER

Well, my favorite part was, when we got all packed up and went past our street, we left Dad's wallet, so we had to go back. So I casually walked past Abigail and Mom, who screamed "Alexander! What are you doing here?!?!!" to get my money while Dad got his wallet.

When we arrived, we ate sandwiches, and the next day we got registered (Which took a long time thanks to the long maze to get there). We also had to lead a lot of other families too.

One night there was a giant water pipe explosion in the Hyatt (not our hotel) and flooded the top floors. They wouldn't let anyone through it. Fire trucks were even parked there. So everybody who got into finals wanted to get into their rooms, but couldn't.

On the day of the finals we went and got subway sandwiches because I ate most of our food supply. That night we started back really late, and stopped at a lot of gas stations, and a restaurant. The next day we came back home.



Girl's Trip

BY ABIGAIL

The girls trip to grandma lorna's. when the boys went to bible bee, the girls went to grandma lorna's house we went with grandma sharla to grandma lorna's with her and we stopped at McDonald's. Granma lorn recorded so many veggio tales for me! and we we went to culvers with grandma sharla and grandma lorna the end.



Grandma Rugg's 89th Birthday

BY ANDREW

When we first came there, our first step (after eating lunch) was to commence battle with the uncle Ben using infrared guns for a while, after which we had to chisel off the old glue for Great Grandma's stones for her flowerbed and re-glue them, which apparently needs doing every few years, and no one seemed to be a fan of the glue they were using. And after that, Grace (who had just come from working at Nothing Bunt Cakes) brought out really good snicker-doodle and chocolate birthday cake. Great Grandma Rugg had the day ended by taking pictures of all of us for Christmas (you never can be too ready).



Grandma Lorna's Mother's Day Trip

BY ANDREW

We went to Great Grandma Lorna's house on the Saturday before Mother's Day to celebrate early. First we ate lasagna, macaroni & cheese, cookies, and pie in the garage. I also helped Great Uncle Steve staple Great Grandma's fence back together. We went to Marathon park, where we did several different sets of playground equipment. That was cool because mom used to play there when she was little. But the playgrounds are different now. The best set had a three floor playground tower. We then came back to Great Grandma Lorna's house. We went to Pizza Ranch for dinner and ate a lot of food. Grandma Lorna fed Attalia ice cream which they both enjoyed.



KHLEM ARBORETUM

By Alexander

Once we went to Khlem arboretum, and it had a bunch of Lego exhibits. The first one we saw was a hummingbird sucking a flower, then ducks, monarch, woodpecker, preying mantis, truck and an eagle. There was also a fun splash pad that was fountains. It was just barely warm enough to go in when we went at the beginning of September. It also had a bunch of plants, trails, and a pair of non-Lego dinosaurs. Grandpa Jeff was more excited about the plants than anything else and more excited about the plants than everyone else. ▣



Snow-Family

By Alexander

We wanted to make snow men to represent each member of our family. We made Dad's snowman the biggest and I remember helping Dad roll the bottom part around to make it bigger, and it was very heavy. We also had Attalia in Mom's arms (though I think it didn't work all the time, we eventually got it working). We used mulch for Dad's goatee, but it didn't work that well! ❄



Biology

By Andrew

The study of life has enthralled me for several reasons:

- I. There is no shortage of complexity in any organism, and no limit to this study. Simple life forms are *not* simple, and their single cell can preform as many tasks as would take many more cells in a large animal.
- II. Understanding how God our environment works will better help us to create technology replicating divine techniques from God used in the creation of the world.
- III. Better understanding of living organisms is the key to unlocking many things that will help us to increase the healthiness of our lifestyle.
- IV. As apposed to arithmetic, Biology is relatively easy to study, being that you will almost always have the answer to a question memorized, whereas in arithmetic, you must calculate the answer.